REMARKS

Currently, claims 1-5 and 11 are presented for examination in the present application. Claim 11 has been allowed and will not be discussed further hereinafter. Claims 1 and 3-5 have been rejected as being unpatentable over US 6,285,146 to Harlan in view of US 6,256,181 to Chinomi et al. The Examiner's rejections are traversed for the following reasons.

The present invention is directed toward a drive unit for a brushless fan motor that is adapted to control the actual rotational speed of the rotor to match a target rotational speed of the rotor. The inventive drive unit includes a power control circuit that controls the on/off operation of a power feed semiconductor switch. In the present invention, after the speed of the rotor is stabilized, the power feed semiconductor switch may have a turn-off time set shorter when the actual rotational speed (i.e., sensed rotor rotational speed) is slower when compared to the target rotational speed. Similarly, the power feed semiconductor switch will have a turn-off time set longer when the actual rotational speed (i.e., sensed rotor rotational speed) is faster than the target rotational speed. Finally, the turn-off time of the power feed semiconductor switch will be unchanged when the actual rotational speed of the rotor matches the target rotational speed.

Harlan teaches a transistor 130 is pulse width modulation (PWM) controlled. PWM control uses pulse width modulation to moderate a change in voltage by repeatedly turning on and off the transistor 130, thereby preventing an abrupt change in voltage. Therefore, in the control taught by Harlan, the transistor 130 is repeatedly turned on and off at different pulse widths or different periods. It is respectfully submitted that this is unrelated to the present invention, wherein PWM

control, which requires expensive and complicated PWM control circuits, is not employed. Rather, the presently claimed invention requires teaches, with reference to claim 1:

> "a rotational speed detecting means for detecting a rotational speed of said rotor"
> "said power control circuit controlling the on/off operation of said power feed semiconductor switch based on a value of the target rotational speed of said rotaor given as a speed command and an actual roational speed obtained by said rotational speed detecting means"
> "said power control circuit being constructed so that after the rotational speed of said rotor is stabilized, said power feed semiconductor switch may have turn-off time set shorter when an actual rotational speed is slower, in comparison, than said target rotational speed, and set longer when the actual rotational speed is faster than said target rotational speed, and set as it is when an actual rotational speed is substantially equal to said target rotational speed."

The cited Harlan patent fails to teach the required "rotational speed detecting means". Harlan also fails to teach a power control circuit for controlling on/off operation of the semiconductor switch based upon the comparison of the speed command and the actual rotational speed. Further, Harlan does not teach the particularly required speed control whereby, after rotor speed is stabilized, the turn-off time of the semiconductor switch is modified to match the actual speed with the target speed.

The Examiner has noted that the Harlan patent fails to teach the required rotational speed detecting means. The Examiner is asked to address the further aforementioned deficiencies of the Harlan patent.

The Examiner has cited Chinomi as teaching a rotational speed detecting means, and has concluded that it would have been obvious to modify Harlan to include the teachings of Chinomi. The Examiner's rejections are traversed for the following reasons.

Initially, it is noted that the Hall ICs 11u, 11v, and 11w of Chinomi serve to detect a position of the rotor magnets. Thus, Chinomi does not teach that the Hall ICs detect a speed of the rotor. Rather, as shown in Figs. 3, 5, and 7, in Chinomi the Hall ICs determine a speed of a rotor relative to the waveforms. Therefore, it is submitted that the Chinomi patent does not teach a speed detector. Rather, in the circuit according to Chinomi, the transistors 21n - 21z, which form part of an inverter 3, are PWM controlled in accordance with the output from the Hall ICs. In this regard, please refer to Col. 4, lines 10-12. It is respectfully submitted that the Chinomi reference does not teach that for which it is cited, and that the combination of Harlan and Chinomi does not arrive at the invention defined in claims 1 and 3-5. It is further noted that Chinomi does not correct the further aforementioned deficiencies of Harlan. The Examiner's attention to this fact is requested.

Claim 2 stands rejected as being unpatentable over Harlan and Chinomi in view of US 6,211,635 to Kambe et al.

It is respectfully submitted that the Kambe et al. reference does not remove or correct the deficiencies of the Harlan and Chinomi patents, described hereinbefore. Accordingly, even if Kambe were combined with Harlan and Chinomi, the presently claimed invention would not result. Notably, Kambe does not teach the speed detector.

Moreover, it is clear that the present invention provides the only motivation for the combination of Kambe with Harlan and Chinomi. The Examiner's statement that the combination, if made, would result in a better product does not serve as motivation for the combination. Rather, the motivation for combining the reference must be provided in the prior art of record. Such motivation is lacking in this case.

In light of the foregoing, it is respectfully submitted that the present application

is in a condition for allowance and notice to that effect is hereby requested. If it is determined that the application is not in a condition for allowance, the Examiner is invited to initiate a telephone interview with the undersigned attorney to expedite prosecution of the present application.

If there are any additional fees resulting from this communication, please charge same to our Deposit Account No. 18-0160, our Order No. NIS-12689.

Respectfully submitted,

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